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Journal of the Amateur Photographic Society of Madras.

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EDITORIAL NOTES.

ON page 123 of last month's Journal we made a few remarks on our trials of glycerine, &c., as additions to the developer for Velox and other slow bromide papers with a view of arresting the rapidity of the development with full strength solutions: in the "Practical Photographer" for October since received from home we find the following paragraph on the same subject:—"The addition of sugar to the "developer used for Velox paper has been "recommended as a means of retarding develop-"ment."

ON page 111 of the Journal for September we referred to the new platinum paper introduced by the Britannia Works Co. Ilford and we expressed a hope that our trial supply would not arrive in the middle of the N. E. monsoon. Our hopes are in vain, for the supply we are advised will be here by the mail of 30th October and at the date on which we write the weather does not promise well for the use of platinum paper. We shall keep the package unopened until a little finer weather prevails and the results will be submitted at the first meeting after the trial: an atmosphere containing 97 per cent. of moisture is not favourable to printing in platinum!

WE hope at an early meeting (weather permitting) to show some specimens of development with "Kachin" and also of the simultaneous developing and fixing with the same substance: we have also received supplies of the new developer "Adurol" and other things, results of which will be shown later on.

JUDGES at photographic exhibitions have not the easiest of tasks and it is an unusual occurrence if their awards are not cavilled at in one quarter or another: however we altogether agree with the expression of opinion in the "Practical Photographer" on the comparatively recent competition held by the Graphic newspaper, the prize pictures of which were published in a separate supplement. The P. P. says "It must be admitted that the personal taste of "those elected to pass judgment upon the work "of others has much to do with their opinion.

"No one of course can be absolutely impartial, "that is outside the nature of things. But it "is difficult to understand upon what basis "the adjudications of some judges are made, "making the widest allowance for personal taste. "The recently published illustrated supplements "in the Graphic are an interesting study for "any photographer who has had any experience "as a Judge or on a committee of selection. "On the same page we find an alpine view of "very ordinary character alongside an Eastern "landscape composed of unusual elements very "pictorially selected. We should have thought "that no one, even a novice, would have hesitat-"ed in pronouncing the latter a cleverer piece "of work. But strange to relate, the former is "awarded three guineas and the latter *nil*. "Again we notice that a very commonplace "country cottage scene with an ugly foreground "and telegraph lines running right across the "sky receives a guinea and a third rate snap-"shot with its buildings and figures tilted half "an inch out of the vertical three guineas. We "have no hesitation in saying that neither of "these prints would have been considered good "enough for a certificate in the Junior Photo-"grapher."

They go on, however, to say that when they come to look at the pictures to which the first, second and third prizes have fallen, singularly enough they have no fault to find: here we differ from the P. P.: in our opinion all the prize pictures, from the first downwards, were very poor and if these were the best out of the many thousands that seem to have been sent in, the rest must have been bad indeed.

A peculiar system of printing on bromide paper was shown at the recent exhibition of the Royal Photographic Society of Great Britain, and succeeded in obtaining one of their much coveted medals: the description of procedure is somewhat vague but is given thus in the Amateur Photographer of 29th September last:—"Mr. Player's method consists in revers-"ing the usual order of things in the printing "frame, the sensitive paper being *between* the "source of light and that which is to be copied. "Let it be supposed that printed matter or an "engraving is to be reproduced from a book. "A sheet of bromide paper is pressed, face "downwards, on the page, (a glass plate being "used for the purpose) a feeble light—yellow or "green being specially suitable—is now allowed "to shine through the bromide paper, when a "latent or developable image is impressed. This "method has special value for reproducing "military plans in the field, also for copying "documents or letters, but as far as we know "no satisfactory explanation has been given "why the image is impressed with such vigour, "although the difference in the light reflected "from the whites and shades of the original "may count for something."

The latter remark almost implies that a "negative" result is given by exposure over an engraving or printed matter, but when the weather improves we will try the experiment and report results.

WE are glad to see that there is a promise of a "New Light" for use in optical lanterns and that it is said to be—absolutely safe—non-explosive—portable—600 to 1000 candle-power —that it requires no cylinders—and no generators and gives practically no h at!!! It is the invention or discovery of Mr. Birt Acres, once well-known for the magnificent carbon prints he used to show at the home exhibitions, but who gave up ordinary photography to devote himself to Kinematography and its apparatus. In this country we should be especially grateful for such a light as is spoken of in Mr. Acres' latest advertisement and if all goes well, our Society would do well to invest some of its spare cash in providing such a light for our lantern shows, which in earlier days used to be our most prominent and interesting feature. There are not now many members left who can remember the evenings at the late Mr. Hanna's house in Spur Tank Road in 1888 and 1889.

WE have received from the Royal Photographic Society their Illustrated Catalogue of the forty-fourth annual exhibition, and it is very interesting and instructive to look through the pictures which we presume may be taken to represent the cream of the show in the opinion of those who selected the pictures for submission to the Judges.

As, however, only one of these illustrated pictures succeeded in getting a medal, it would appear that the opinions of the Committee differ considerably from those held by the Judges and as the only successful one is a somewhat poor interior in which the rays of sunshine coming through the windows have a curiously pencilled

appearance, while the rejected ones are, almost without exception, very fine photographs indeed, we think it rather a pity that the decision as to awards did not rest with the Committee.

WE have frequently advocated the use of "backed" plates and as we have recently had an enquiry as to the best way of photographing snow-covered hills we annex a few notes taken from Messrs. Cadett and Neall's little monthly pamphlet "Dry Plates."

Mr. Cadett remarks that a recent trip to Switzerland had taught him a lesson as to the great value of backed plates and that one might as well attempt to photograph "interiors" without backed plates as attempt work on snow-covered mountains with deep valleys in shadow. For orthochromatic plates he say a "black" backing is absolutely necessary.

He tried an interesting experiment on a whole plate, by backing one half of the plate only: then he photographed a long narrow window, the bright portion of the image extending right across on one side of the plate. He noticed that, quite independently of the cure of halation, the deep shadows in the *backed* portion were quite clear, while at the other end of the unbacked portion of the plate the deep shadows were fogged and spotty.

He explains this by saying that the to and fro reflections between the two glass surfaces necessarily comprise angles of wide differences, including those of so-called total reflection. Before we arrive at the angles of total reflection sufficient light repasses the film to cause halation and so upset the correct gradations in the high lights and as glass-polishing is anything but a perfect process the glass plate is full of light which emerges at every broken point or scratch in the surface and the imperfections of the glass are photographed on the unbacked plate *all over its surface*—This accounts for the many foggy, spotty shadows in unbacked plates, which are often looked upon as mysterious. Mr. Cadett thinks that an unbacked plate not only produces halation, fog, and spotty shadows, but also has the grave fault of interfering with the range of gradation, and he recommends the use of backed plates, although as a manufacturer he finds the process a nuisance and a trouble.

"WE regret to say that up to the time of going to press no "Home Letter" has reached us for this month."

THE USE OF BROMIDE PAPER.

(*Continued from page 126.*)

IN the first part of this article I confined myself wholly to writing of how to develop correctly exposed paper, but when commencing the use of bromide paper it is not always an easy matter to settle the correct exposure—there are such variations in the density and colour of a beginner's negatives.

It is best, in the first instance, to begin with the best negative you have—one with a little absolutely clear glass in the very deepest shadows and with the high lights not too dense, and plenty of half-tones in between these two extreme points: a really perfect negative is one that will print well in any material, bromide, P. O. paper or even carbon, and when you come across such a negative I recommend you to cherish it and try to live up to it in the future.

If you are going to print many copies from one negative only, I should advise you to begin as recommended in the last Journal by giving what you consider to be about the correct exposure and if you find on development that it is too much or too little, alter your exposure accordingly until you hit upon the approximately correct exposure, then you can expose the number of pieces of paper required for the number of copies you want and develop them one after the other as quickly as possible—taking great care that each piece of paper has exactly the same exposure.

If, however, you only require one print from each of a lot of negatives, all varying in density and colour, it becomes a much more difficult matter: in this case I can only advise you to give as nearly the correct exposure as you can, taking care to err on the side of *over*-exposure and then to put things straight by altering the composition of the developer:—in the last number the formulæ were given for the stock developers and quantities were given for *correct* exposures, the following will now show how to make up the developer for over and under exposures:—

A. CORRECT EXPOSURES.

Stock No. 1	½ ounce.
" " 2	½ "
Cold distilled water to	4 ounces.

B. OVER-EXPOSURES.

Stock No. 1	3 drams.
" " 2	3 "
Cold distilled water to	6 ounces.
Potass Bromide	6 grains.

C. UNDER EXPOSURES.

Stock No. 1	3 drams.
" " 2	5 "
Cold distilled water to	4 ounces.

As above stated give rather more than what you may judge to be the correct exposure, (that is, give 25 per cent. or so more,) and commence to develop with the mixture for over-exposure: if you have really over-exposed the paper, you may continue to finish development with the same solution: if however the picture does not begin to show up within 20 seconds, pour off the developer and try the solution for correct exposure and if this does not bring out the picture, try the under-exposure solution: if even this doesn't prove strong enough, throw the paper

away and try 50 per cent. more exposure and go through the operations again.

When once you have hit upon the correct exposure for development with "A" developer, make a note of it for future guidance, remembering always to keep the light as nearly as possible the same and the distance between the flame and face of negative also the same—see previous paper.

Reducing. If you find, on taking the finished print out of the hypo, that development has been allowed to go too far, take a few drops of strong solution of Ferridcyanide of Potassium and add to them 3 or 4 ounces of Hypo solution 10 per cent., and before washing off the fixer flow this new mixture over the print which should be laid on the bottom of a clean dish—you will soon see the general veil begin to disappear and just before its final disappearance take out the print and rinse quickly in a tub of water: be careful not to add too much Ferridcyanide, only enough to make the solution a *pale* yellow colour: too much will not only act too quickly, but has a tendency to eat away at once the detail in the high lights and to discolour the print especially at the corners and edges.

If your print has been made from a negative with strong contrasts, you may find that while the detail in the high lights is just right, the shadows are heavy and blocked up—then reduce (after very carefully washing all the hypo out of the print), in a 2½ per cent. solution of Lumiere's Persulphate of Ammonia made up *quite fresh*: a 2½ per cent. solution means 48 grains of P. A. to 4 ounces of water. You will find in this case that the heaviness in the shadows will quietly disappear while the details in the high lights are untouched: when done to your liking, wash quickly in water, soak for 10 minutes in a 10 per cent. solution of Sulphite of Soda, wash in water for 10 minutes and dry.

Intensifying. If you find your print on drying (they dry darker than they look when wet) not quite dark enough, it can be improved by intensification with mercury followed by Rodinal, or, if a brown tone is liked, by using a solution of Uranium, &c. the following are the solutions in each case:—

MERCURY AND RODINAL.

No. 1.

Mercuric Chloride	180 grains.
Distilled Water	10 ounces.

No. 2.

Rodinal	1 part.
Distilled Water	31 parts.

Soak the print in cold water until quite limp, drain it and place it in the mercury solution where it will gradually whiten: do not let it go too far, but take it out and wash well in clean water for at least an hour and then take it out drain it, put it in a dish and pour the Rodinal solution over it in one sweep, when dark enough take it out and thoroughly wash it, then dry it and if not dark enough, do the whole thing over again: to put the Rodinal formula in perhaps a clearer way, I may say that 1 dram of the Concentrated solution as purchased should be diluted *to* 4 ounces with water. The mercury solution can be used over and over again.

To intensify (and tone) with Uranium, make the following solutions:—

No. 1.

Uranium Nitrate	240 grains.
Glacial Acetic Acid	4 drams.
Distilled Water	8 ounces.

No. 2.

Potas: Ferridcyanide	240 grains.
Glacial Acetic Acid	4 drams.
Distilled Water	8 ounces.

For use take ½ ounce of No. 1, add it ½ ounce of No. 2 and dilute to 8 ounces with water.

Soak the print in cold water till limp, drain it and immerse in the mixed Uranium solution—the image will strengthen and gradually turn brown, when done just enough take it out and rinse in changes of water until the yellowness has departed from the whites of the print—*at once* stop and dry: the treatment with Uranium answers best when very little strengthening is required. If you have toned the print too far with the Uranium solution, a continued washing with plain water will remove the whole of the "browning" and you can do it again more carefully.

Toning It is possible to tone the Bromide finished image to all sorts of colours and below I give various solutions for effecting the same: (I had got thus far on about the 20th of October when circumstances brought me to a stand-still for a fortnight and when on the 2nd November I was again starting to copy from my Note Book, I received the British Journal of Photography of the 13th October and therein I found very much later detail than my note-book possesses and I therefore append an extract from the paper which is written by Mr. A. D. Pretzl):—

The most useful method of obtaining reddish-brown and sepia tones is by means of a uranium salt and ferridcyanide of potassium. The chemical action which takes place in toning is, of course, the formation of ferrocyanide of silver and ferrocyanide of uranium, the latter being precipitated upon the image in a form insoluble in water, but readily soluble in an alkali; hence it is usual to acidify the toning solution, and also to acidify the washing waters. The best acid is undoubtedly acetic, because it has no action on the silver image or upon the toned image.

In all the toning formulæ which I shall treat of there is one common solution, that of the ferridcyanide, which is best made up in a one per cent. solution with ten per cent. of glacial acetic acid.

The uranium salt generally used is the nitrate, but it is better to use the acetate, and a one per cent. solution of this, with ten per cent. of glacial acetic acid, forms the necessary stock solution.

The tones obtained by these solutions varies somewhat according to the proportion of the ferridcyanide and uranium, as there are two distinct ferrocyanides of uranium, which are precipitated the more readily when the above solutions are mixed in definite proportions.

For sepia tones an admixture of one part of ferridcyanide solution and two parts of uranium solution is the best; for reddish-brown tones, one part of ferridcyanide solution and one and a half

Fig. 1.

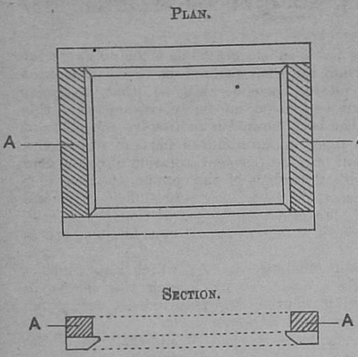


Fig. 2.

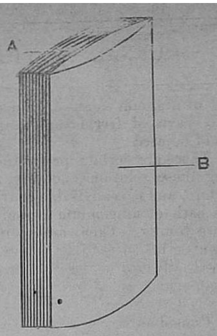


Fig. 3.

LIGHT TIGHT BOX.

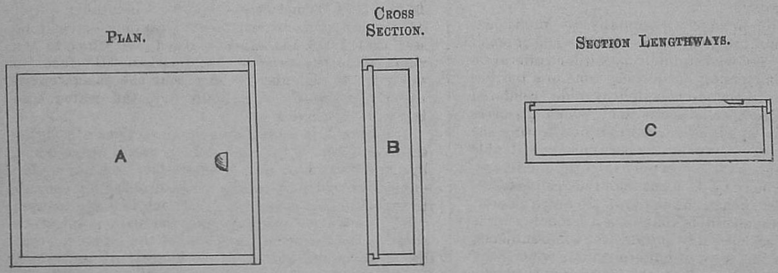
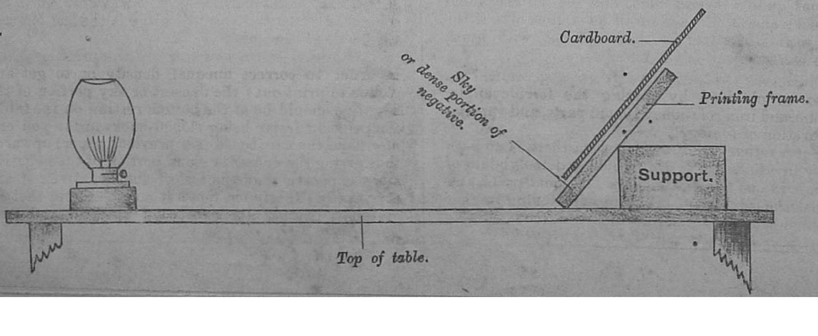


Fig. 4.



parts of uranium solution; whilst for bright red tones equal parts of ferridcyanide and uranium solutions should be used.

There are certain precautions to be taken when using these solutions, notably, the absence of hyposulphite, and it is advisable to treat the print or image to a bath of ammonium persulphate (one per cent.) before toning. Then, again, in toning for reddish-brown or bright red, the prints should be allowed to lie perfectly still in the dish, or otherwise some of the image, which is in a readily soluble state, may be dissolved.

Considerable variation of tone can be produced by varying the time of immersion, as, for instance, by merely immersing a print in the bath destined for bright red tones for a short time, a warm sepia is obtained but the image is certainly more liable to change when in this condition than if the proper bath is used, and the baths are so compounded as to give the correct tone, no matter how long the prints are immersed.

As I have already pointed out, these images are soluble in alkalies, and therefore it is advisable to a great extent to acidify the washing waters with acetic acid.

All the above, and the following toning solutions, are more or less sensitive to light, and should therefore be kept in the dark.

This toning process is essentially an intensification, and, should the print be too heavy when intensified, it may be reduced in intensity without alteration of colour, by immersing for a short time in a ten per cent. solution of ammonium sulphocyanide, rendered faintly acid with glacial acetic acid, which dissolves the white ferrocyanide of silver without affecting the uranium salt. This process is particularly valuable for lantern slides, as it leaves only the uranium image, which is much more translucent than the opaque ferrocyanide of silver, hence the shadows are much clearer.

Blue or greenish-blue tones are not much sought after but they are specially suitable for some subjects, particularly in the form of lantern slides, when they make a welcome change from the interminable blacks and browns.

The same ferridcyanide solution is used, and the second solution is a one per cent. solution of ammonio-citrate of iron with ten per cent. of glacial acetic acid, and these two should be mixed in the proportion of one part of ferridcyanide and one-and-a-half parts of ammonio-citrate. By prolonged immersion the image becomes quite a bright blue, and for lantern slides this looks almost like a stain of an aniline dye if the ferrocyanide of silver be dissolved out with hypo, which has no effect on the blue image.

Numerous shades of pure green or greenish-blue are to be obtained by mixing the ferridcyanide, uranium, and iron solutions in equal parts, and varying the duration of toning.

For a rather rich brownish sepia there is no bath so easy to use as the ferridcyanide and molybdate of ammonia in one per cent. solution, in equal parts, and this has the advantage over uranium toning in that the prints can be washed in ordinary water.

Copper has been suggested as a toning agent for bromide prints, but some prints thus toned six months ago have altered considerably, so that no great reliance can be placed on the permanency of this process. The best method is to dissolve ten parts of acetate of copper in one hundred parts of water, and add sufficient of a ten per cent. solution of oxalic acid to precipitate the whole of the copper, then to pour off the supernatant liquid, and add sufficient neutral oxalate of potassium to dissolve the precipitate, adding enough water to make one hundred parts in all.

An intensification process, which also gives a brownish-black image, is to bleach the image in mercuric iodide solution, and then to treat with a one per cent. solution of Schlippe's salt.

I give herewith a page of illustrations of the apparatus, &c., used in bromide-printing and referred to in this article, (see October Journal) and I append a few explanatory remarks on each sketch:—

Figure 1, is a plan and section (lengthways) of a printing frame adapted for bromide-printing: it is merely an ordinary frame of the size required, with the ends blocked up with pieces of wood which are shown as "shaded" in both sketches and are marked "A."

Figure 2, shows the appearance of a packet of 12 sheets of Barnet Bromide paper when taken out of its cover and its brown paper wrapping—it will be seen that 11 of the sheets marked "A" face to the right, while the twelfth sheet marked "B" faces to the left. It will also be seen that the sheets curve slightly, especially when quite dry, the coated side being the concave side.

Figure 3, is a plan with cross-sections of a light-tight box which will found very useful when doing bromide printing to any great extent: "A" is a plan of the box which should be made of a size big enough to take the largest size of paper one is likely to use; "B" is a section sideways and the main point to be noted is the flange on each side of the lid to prevent the entrance of light: "C" is the section lengthways, here the points are the flange at the end of lid, the front piece to prevent the leakage of light between the lid and the front of the box, and the piece scooped out on the lid to allow of its being easily pulled open by one's thumb: the box can have a lock if necessary.

The paper should be laid down in the box with sheet B (fig. 2) at the bottom facing upwards, and the other 11 sheets (A) face downwards on top of sheet B: all the sheets will be face downwards until one only is left, and that you will know is the last one and that it faces upwards!

Figure 4, shows how to place the printing frame in order to correct unequal density or to get any clouds to print out: the densest or sky portion of the negative should be at the bottom resting on the table, the printing frame being sloped backwards: you can now slide the cardboard (see previous paper) upwards thus giving the denser or cloud portion of the negative more exposure than the rest of the negative: if the sky is only slightly too dense it may be found that by gradually sliding the cardboard upwards and thus

uncovering the negative, then leaving it the required number of seconds exposed to the light, and then sliding the cardboard from the top downwards gradually covering up the whole picture, sufficient extra exposure will have been given: if not, then it will necessary, after the other portions of the negative have been given sufficient exposure, to gradually vignette the denser portions by moving the card up and down quietly until the denser portion has had enough. The "support" may be a plate box or pile of books or anything fairly solid.

I must apologize for the crudeness of the sketches, but I am only a very amateur draughtsman.

I think this is about enough for one Journal, so will defer remarks on enlarging, &c., until a future number. F. D.

PROCEEDINGS OF THE SOCIETY.

Monthly Meeting held on Friday, 3rd Nov. 1899, at the Museum Rooms.

The minutes of the October meeting having appeared in the Journal for that month were taken as read, and confirmed.

Pictures of "A Native Conveyance" were shown by the Hon. Mr. G. Stokes, Mr. A. Pilkington and the Kumar Rajah of Bobbili: that by Mr. Stokes was considered the best, being a very fine 12″ × 10″ enlargement from a 5″ × 4″ negative.

A sample of the new developer "Kachin" was shown by Mr. Dunsterville, together with 2 transparencies and a negative all developed and fixed in one solution of Kachin and Hypo: the plates had been purposely considerably over-exposed for 2, 4 and 6 seconds to a Silber lamp, where about half a second would have been ample—the plates being Wratten's Instantaneous.

The "Kachin" had been received in small cylindrical wooden boxes each containing 3 half-ounce bottles of concentrated Kachin and Caustic Soda solution: the mode of packing might be improved upon, as the corks were very much eaten away and had to be pushed into the bottles, being too rotten to be pulled out.

The combined developing and fixing solution had been compounded in strict accordance with the printed instructions: each plate had been left in the solution until fixing seemed to be complete and was afterwards placed in a fresh hypo solution for 10 minutes: *development* only took 30 to 40 seconds, but it was of course considered necessary to leave them in the mixed solution until fixation was complete—the results were very good indeed, the only fault being excess of density, but this can be corrected in all probability by further dilution of the combined bath.

It was arranged that a demonstration of the process should be given at December's meeting.

Mr. H. A. Sim, I.C.S., was proposed for membership by Mr. Dunsterville seconded by the Hon. Mr. Stokes and unanimously elected.

The question of members still in arrear was then gone into and it was decided that the names of those who had not remitted their dues should be removed from the list of members: should, however, any of them desire their names replaced on the list at any time, they had only to remit the amount of dues of which they had already been advised, plus any fresh subscription that would become payable on their names being replaced on the list of members.

QUESTION BOX.

It was refreshing, after a long interval, to find a member asking for information—the following were the questions propounded:—

1. Can any member of the Society suggest a rough and ready way of translating Wratten and Wainwright's Sensitometer numbers into Hurter and Driffield's Scale?

The Hon. Secretary has fortunately been in the habit of keeping a note book for the last 20 years or more, and in it he has found details which have enabled him to work out the following statement, which he trusts will be of use to the members of the Society generally, as well as to the one who asks the above question.

Relative Speeds of gelatine plates by Warneke's Sensitometer as compared with Hurter and Driffield's numbers.

Warneke's Sensitometer numbers.	Hurter and Driffield's numbers.	Comparative exposure required.
25	250	1
24	187	1⅓
23	143	1¾
22	107	2⅓
21	83	3
20	63	4
19	50	5
18	36	7
17	28	9
16	21	12
15	16	16

The above table shows that Wratten's Instantaneous plates marked "Sensitometer 19" are about equal in speed to other plates marked "H and D 50", and that Sensitometer No. 25 is 5 times faster than No. 19 and so on.

2. What exposure should one give for *snow*, relative to exposure for sea and sky?

The enquirer states that "the books say nothing on the point: I have myself taken two plates which please me very much: (1) end of June 1897, time 12-15 p.m., bright sun: snow mountain 12 miles distant—height of camera above sea 2000 feet, mountain 13,670 feet, plate Cadett's H and D 109—aperture of lens f 16, exposure $\frac{1}{60}$ second: immediate foreground is rather under-exposed, but that is to be expected. (2) middle of July same year—3 p.m., bright sun—Glacier distant a few feet reaching up to some miles away—men on glacier 40 yards away—height of camera above sea 8000 feet—mountain in which is the glacier 15,700 feet, but top not in picture—Spur about 13,000 feet appears—similar plate to No. 1—aperture of lens f 22—exposure $\frac{1}{20}$ second."

Only one of the members present had had any experience of "snow" photography, but he had taken a good many pictures in November 1898 in which appeared mountains covered with snow on top: the plates he had used were Ilford "Empress" plates (specially *backed* for him by the makers) the speed about H and D 100: his note-book shows that to get detail in trees, &c., in the foregrounds while retaining detail in the snows exposure varied from 2½ seconds when the foreground trees were fairly close, down to ½ second when there was practically nothing but grass near the camera—the stop used throughout was f 22—the results are good in every way: this would show that the enquirer's exposure were much too short.

Members are reminded that the subject for exhibition at the meeting on Friday the 1st December is "A Water Scene."

The Hon. Secretary reported that only one member had raised any objection to the despatch of the January number by V. P. Post, all the others, that have communicated their opinions, having cordially agreed with the suggestion.

Those members therefore who do not desire to continue their membership of the Society are desired to advise the Hon. Secretary before the 1st January 1900, in order that they shall not be troubled with the receipt of the Journal by V. P. P.

EDITOR'S TABLE.

We have received from Messrs. Babajee Sakharam & Co., Bombay, a few samples of very pretty mounts for Christmas and New Year's cards: they are suitable for prints from 3″ × 2″ to cabinet size and some are for slip-in pictures while others are for mounting in the ordinary way: the designs are exceedingly neat and artistic. We are sorry they did not arrive in time for the last meeting so that the members present might have seen them.

We have also received from Messrs. Oakes & Co., Madras, a quantity of first proofs of a new kind of Xmas card they are introducing: they comprise some 35 different kinds illustrated with views in permanent photography of scenery, people and buildings to be found in the Madras Presidency and other parts of India: they are executed in an artistic style and look more like sketches in Indian-Ink by brush and pen, than the common thing in the photographic line—we should think that the finished pictures will be very acceptable to those amongst us who wish to send home to their friends something reminiscent of the country we live in.

The weather having got a little drier we took an opportunity on the 9th instant, being a public holiday, of opening a tin of "Platona" paper and trying the contents: the tin is fastened by a strip of metal soldered round the lid and it is easily removed. The paper was exposed through some of our best negatives and gave *most excellent* results: for developer we used the formula given by the Ilford Co., as follows:—

Potassium Oxalate	2 ounces.
Potassium Phosphate	¼ ounce.
Distilled Water to	14 ounces.

one ounce and a half of this was diluted with an equal quantity of distilled water (according to formula) but on our own account we added one ounce of pure glycerine and after seeing the results we do not think we were wrong.

The prints will be shown at the next meeting of the Society: they seem to be more brilliant than those we have got from the same negatives on paper from the Platinotype Co.

EXTRACTS.

Photographic Lens-Making.

(Continued from page 116).

THE worker then covers the polishing tool with a layer of soft pitch from 3 to 5 mm. thick, and leaves an exact impression of the lens surface by pressing it down upon the pitch while still soft.

The pitch layer when cold is covered with the polishing medium, and the tool set in rotation.

To preserve the proper curves of the lens is a matter of the greatest care and experience, and to ensure perfection they must be tested in increasing frequency with the test glass. The polishing process lasts considerably longer than the grinding; the time depending on the size, form and thickness of the lens, and to not a small extent on the worker's skill.

Thick lenses are more easily polished than thin, small ones than large, and for a lens 5 cm. diameter about one day is required.

The finished lenses are now taken to the Superintendent, who examines each finally with the spherometer. The principle of the spherometer for determining the radius of a lens surface consists in measuring the height of the spherical surface over a known base. The lens to be examined is placed on the known base in the spherometer, and a small contact rod presses from underneath gently and uniformly on the surface. The position of the

contact rod, which is read by means of a micrometer, gives the desired height, and a further simple mathematical calculation determines the radius.

The Superintendent examines the glass finally for flaws. Small air bubbles have really no detrimental effect on the picture, merely cutting off a small fraction of the light, but flaws or strains reduce the value of the objective, and indeed, often make it worthless.

In each process, from the beginning, there is a considerable proportion of rejected material, especially in the cutting out of the lens from the rough block. The less practised workers also frequently spoil their work, thus increasing the final cost considerably, and considering that each modern "Anastigmat" consist of 6, 8, or 10 pieces there need be no surprise expressed at anastigmatic objectives being much dearer than aplanatic ones.

We come now to the second chief stage in the progress of the objective—the fitting together of the various parts. The first process is the centering, that is, bringing the geometrical and optical axes into coincidence. This process, upon which the quality of the objective largely depends, is performed upon a truly rotating lathe spindle. The worker cements the lens on the spindle end so that at first the optical axis of the lens and the geometrical axis of the spindle lie roughly in line, he then sets the spindle in rotation, and by eye observes the two reflections from the objective of some illuminated object, *e.g.*, a window, cross wires, etc., rotate or remain still.

By pushing the lens upon the soft cement he adjusts the position until on rotating the spindle the two reflections appear as nearly as possible to stand still.

The final adjustment is done by means of a system of levers, with a ratio 1 in 30, or even 1 in 50; that, is when the short arm moves, the end of the long arm magnifies the motion 30 or 50 times, according to the ratio.

The small arm, which ends in a small glass-hard steel ball, polished to prevent injury to the glass, is placed against the edge of the lens surface, and rotated round the spindle. If the end of the long lever remains still the lens is correctly centred, that is, the axis of rotation and the optical axis coincide. If, however, the lever moves the lens must be shifted until the lever remaims steady or very nearly so. When this occurs the cement is left to harden.

The grinding of the rim now commences. A special grinding tool is pressed against the rotating rim so that when the operation is finished the optical axis is also the geometrical axis of the lens, and this is the direct intention in centering. When the proper lens diameter is reached the spindle is warmed, and the lens removed.

It then passes to the cementing room where the parts of the objective are fitted together.

As is well-known the modern double objective is a combination of lenses cemented together. The Goerz Double Anastigmatic objective, for example, consists of two equal halves, each containing three pieces.

In order to obtain good photograms the pieces of the objective halves must be most carefully united; any air spaces causing grave deficiencies. The canada balsam used as a cement is very clear, and reduces in no way the transparency of the lens. It is used only in the thinnest possible layers, rarely exceeding $\frac{1}{20}$ mm. in thickness, so that the pieces lie almost in contact. If the worker is sure the pieces are properly centered he carefully cleans the surfaces, and covers them with warm canada balsam. He then presses them tightly together to press out all air bubbles, and so ensures a uniform thickness of the cement layer.

The objective is then placed under the arm of the levelling apparatus, in order to bring the pieces centrally together. The objective edge, while lying on the platform, is pressed against two steel knobs so that the objective is rotatable about its optical axis without that axis changing its position. The small arm of the level lever is now laid on the edge of the surface just as in centering, and on rotating the glass by hand, the smallest irregularity in the position of the lenses is observable by watching a highly-sensitive spirit level placed on the long arm.

When the lever remains steady the lenses are centrally cemented together, and until this is so the worker must lightly press the objective where too high. To keep the cement soft during this operation the table of the instrument is uniformly heated. Only after the level remains steady can the worker bring the objective to the Superintendent as correctly cemented.

The finished objective halves are now subjected to exact optical tests. The apparatus, consists of an optical bench, fitted with an arrangement to hold any size of objective or part of objective. A system of lines, illuminated by a glow lamp, and moveable to right or left, is used as a test object. The picture of this object as thrown by the objective upon a ground glass screen is examined by means of a high-power magnifying glass. The picture of the test object, when lying in the optical axis, is then examined for clear and sharp definition of the lines, for dimness, and to see whether or not the picture remains still, while the glass is rotated about its optical axis. The test object is then moved to the right or left through a known angle which can be accurately adjusted and read, and the picture of the lines again examined.

When the objective halves have been thus thoroughly examined, and found to be good, the same apparatus is used for determining what separation of the halves will give the sharpest definition in the picture. This can be determined to $\frac{1}{20}$ mm.

The separation is previously calculated, but in practice small corrections are always necessary since variations in the thickness of the balsam layer and of the objective are unavoidable.

As soon as the testing of the objective halves is finished, and the separation exactly determined, the parts are taken to the mechanical department to be fitted into their metal mountings. The making of the mountings is the third stage in the manufacture of an objective. Space, however, does not permit of a detailed account. The quality of the objective depends as much upon the accuracy of the mounting as upon the workmanship of the glass, and in this stage quite as complicated machines, as in the previous, are necessary to make the numerous parts fit accurately together.

In this large department the rough castings are turned, the brass body tubing cut into lengths, and the flanges soldered on; the pieces screwed on special turret lathes, and finally the ring for fixing the objective fitted into place. When everything is found to fit accurately the objective halves are placed into their respective mountings, and then both carefully fitted together.

The objective comes once more to the testing apparatus to be examined optically, as a whole, just in the same way as before described, and only when the picture of the test lines shows within an angle of 60° the same sharpness as at the axis, is the objective considered good. It is now taken to another department where it undergoes the final process of having the firm's name and other necessary engraving done. In order to test the capabilities of the objective more practically than is possible with the previous apparatus a large studio is provided, fitted out with everything necessary, and directed by a skilled photographer. The test objects used here are larger printed screens, which, on being photographed, at once show up any want of sharpness.

The effects of the various stops are also examined. These repeated tests ensure that the buyer of Goerz's objectives receives what is really good and useful, and that no objective sold is inferior to other makes of the same design and construction.—*The Photogram.*

Landscape Composition in Photography.

By Mr. ALFRED EAST, A. R. A.

(*Thursday, May 18,* Mr. G. A. STOREY, A. R. A. *in the Chair.*)

(*Continued from page 129.*)

THE word *decorative* is used when a painting is not merely naturalistic or classical. We are all the victims—more or less—of an inherited convention, and it is necessary that we should be so. If you frankly accept the conditions of your art, without grumbling, you approach your work in a totally different spirit to the man who is always complaining of the conditions that hamper him. I think it is quite possible to get a romantic expression with classic construction; personally, that is one of the things that I have aimed at, for I think that without loss of style it is possible to get strong expression of emotion. It does not follow that in the dawn of romanticism, because literary men and painters went mad, as it were, when the greatest drivel was written because they were emancipated from classicism, that romanticism was wrong. We cannot say, for instance, that Scott was a bad writer, or that Turner was a bad artist. Constable was born at a time when the conventions of landscape painting were most enthralling and tiresome; he came at a time when landscape painters were painting the conventional brown tree with a certain conventional touch which they inherited from Hobbema and Ruysdael, and others of the Dutch school, whose conventions would have throttled the vitality of any school; but Constable painted Nature as he saw and felt it, just as Robert Burns wrote of what he felt. John Constable made it possible for any painter who followed him to paint as he individually felt, and to express his own opinion; and perhaps the predominant quality in our English school, as compared with that of other countries, is that great difference—that great personality—that great individualism which marks it. What I want to see in photography is just that spirit of independence, each man relying upon himself and photographing what he loves best and what appeals to him most; you may depend upon it that in that way you will attract a great many people and touch a great many hearts, which you will never do if you follow along a road which has been found by another man.

If you will forgive me, I will tell you a story which brought home to me very strongly the force of inherited ideas. When I was in Japan I was painting at Nikko—a place so charming that the Japanese say, "He who has not seen Nikko must not use the word 'beautiful' "—and an eminent connoisseur of art introduced me to two native painters, and we all sat down to paint the same subject. We did not look over each other's shoulders, but when we had finished we looked at each other's sketches. I thought I had looked at the scene from an absolutely independent point of view, and that I had simply put down my own personal and independent version of what I saw felt and saw; but I was appalled when I saw their pictures, which were equally like Nature, but so different!

They had selected all the decorative forms and made a beautiful decoration, but it was what they left out that really made the beauty of it; every vulgar form, that did not help their idea from a decorative point of view, they had excluded. I recognised at once that I had been more or less the inheritor of a tradition that had gone through centuries — that my masters had taught me, and I had inherited, a tendency to see Nature in a particular way. Whatever we may say about art, there is a tremendous force impelling us to do a thing in a certain way; and therefore there is all the more honour to a man who, with all the restrictions surrounding him, can give you a new aspect and lead you to look at Nature from a more beautiful point of view, or from some aspect that has hitherto missed attention. If a picture is not beautiful it is the fault of the painter, and not of Nature, for Nature is always responsive, and the painter can select from Nature just as Turner selected. We may say of the finest things that have ever been done that we have never seen them in Nature ourselves; we may not have seen them, it is true, but the artists have lifted the veil for us, and we have seen them afterwards. The great aim, however, is to show them yourself if possible, and I think that lies in this new art of photography to an eminent degree. Photography can help us painters much more than it has helped us in the past; we need not take all that you offer us in a photograph, but we can select the beautiful forms from it if we have the power to adapt them to our purpose, and you must give us the privilege of excluding all that is not useful to us.

I want to speak, in the last place, about artistic photographs. I hope I shall not tread upon any of your toes. I do not wish to deny the quality of a very sharp negative, and particularly if it is done under certain difficult circumstances of which I may be more or less ignorant; but there is a certain inconsistency in what we call "fudging"—what the old Scotchman meant when he said, "Give it a rub with your thumb, and call it 'feeling.'" You know there is no such thing as accident in art; you can take advantage of an accident, as all artists have done, and perhaps journalists and writers, too, but it is the taking advantage of it that proves the artist; but I do not think the mere accident should count, for a thing that you cannot repeat is a very dangerous experiment. I have seen some wonderful results in photographs owing to this "fudging" business, but the difficulty is this: it stands to reason that anything of a soft material may have a soft edge, but a soft edge cannot be appropriate to a hard material. Take, for instance, the

figure of a bather by the sea-shore; there is a boy in the full blaze of sunshine, and when you have photographed that figure you wish to soften the edges, but you do not consider that where the bones would necessarily be, it would be harder than the abdomen, which is soft flesh, and that is the fault in indiscriminate "fudging." It is the same with trees: the tree trunk is hard and stable in its outline; it is in the leaves that the sense of movement comes in and shows that the tree lives; therefore you destroy the character of the tree if you give it the same amount of blurring all over. I do not see how you are to get over the difficulty, but it is worth consideration. I do not know whether it could be done by covering certain parts that you wish to remain hard. I have seen results that are perfectly marvellous in photography, but they are very seldom absolutely satisfactory in consequence of want of attention to this point. If you take a cast of a human being, and compare it with a representation by an eminent sculptor of the same model in the same position, you will find that the cast gives the sensation of deadness whilst the sculpture will be a living moving being. In the representation of movement, again, there are some movements which you can follow with your eye, and which should therefore be drawn in their nature form, but the movements which you cannot follow with your eye should be painted to illustrate your impression of them. The camera gives us the intermediate movements, say of a horse, but with a loss of apparent truth to the eye because you are not in the habit of seeing a horse in those positions, although I would not for a moment depreciate the value of instantaneous photorgaphs. It is a great advantage to the painter to know the intermediate movements of horses in a line of cavalry, for instance, but a single horse always look awkward and artificial if depicted in one of those attitudes.

I would call your attention to the value of the study of some of the masters of composition, such as Turner and Claude,—Turner's *Liber Studiorum* and Claude's *Liber Veritatis*; then there are such men as Poussin and Constable. Constable's skies were admirably adapted to the material of his landscapes, which is a subject that might be dealt with in a paper—the application of skies to landscape. With regard to the Dutch school the touch of the brush which represented a leaf on a Hobbema would probably be the same size as the head of a person immediately below it, and of course that sort of thing is worse than any bad photograph, for it has not even the merit of truth. Such artists went in for the letter and not the spirit of their art, and I think that the letter often killeth; it is the spirit that giveth life, and the expression of life and movement is the predominant and most beautiful quality in art.

Discussion.

Mr. Washington Teasdale, after expressing his appreciation of Mr. East's very instructive lecture referred to the manner in which photography had been regarded by artists in its early days, and said he was glad to have lived into a time when such an excellent feeling existed between photographers and artists of such known eminence as the lecturer. With regard to the apparent variation in the size of the moon, he said this was due to the fact that at certain times it was possible to compare the moon with terrestrial objects of known size and distance, and that when this could not be done one was unable to form a proper idea of its size.

Mr. T. C. Porter said that when people look at Nature they say it differently; therefore, if a photograph represented a view as near to Nature as it could be represented, different people would interpret the photograph at least as differently as they would have interpreted the original scene. An artistic man would see the artistic points in a photograph, and the man who was not an artist would not see them; it would consequently appear that the nearer a photograph was to Nature the better for everyone who looked at it.

Mr. Mitchell referred to the importance of the sky in a landscape, and remarked that as the photographer generally made or selected the clouds to suit the landscape, the composition in that respect being entirely in his own hands, he was upon much the same level as the artist so far as that part of the picture was concerned.

Mr. H. E. Davis thought photographers often failed through want of consideration of the worthiness of the subject, a subject which would be quite satisfactory as a quarter-plate print or a thumb-nail sketch being often utterly spoilt when enlarged to greater dimensions.

Mr. R. Inwards, returning to the question of the size of the moon, said that in a picture ten feet long, including an angle of 60 degrees, the moon would be just one one-hundredth part of the length of the picture, *i.e.*, one inch; and he said he did not see why artists should want to represent the moon untruly just to suit the exigencies of their pictures.

The Rev. F. C. Lambert was very glad to find that artists were beginning to acknowledge that there were possibilities in photography, and that they had discontinued the patronising air with which they formerly regarded photographers, whom they used to address in the sort of style that one would expect an archangel to adopt towards a black beetle. If art could be defined it would cease to be art, for its great charm lay in the fact that it could not be expressed in grains or yards or points. The fact that art permitted a good deal of personal elasticity, and room for imagination and feeling and individuality, was exactly the quality that made art what it was. Definitions were awkward things, but as a definition of art, perhaps Coleridge's was as good as any—"Something between a thought and a thing, which cannot be defined."

Mr. East said that to the painter art was an expression of his own love of Nature—a creation, an embodiment of an abstract thought; an expression, some had called it, of faith in things not seen, but felt. Nature was full of inconsistencies and inartistic things, full of conjunctions of colour that did not harmonise. Trees were not always to be found ready-made in the beautiful forms and contours that the artist tried to depict; but to alter them without altering their character, the artist must know their growth and history, and the way their limbs are articulated, and all about them. So that art is not merely a copy of Nature, like a photograph, but it is taking from Nature those things by which we can best tell to our friends the story of our love of Nature. I believe that as painters we have to express what Nature is to ourselves, not what it is to the man in the street, for if we cannot show him something more than he can see for himself, there is no reason for our existence. I think the photographer must sooner or later find his place. He has got a splendid place; he has brought home to us the records of the art of the world, its architecture, the character of its countries, and the beauties of its designs, and many

other things. Surely that is a great thing. Why does he, then—why need he try to do the impossible? It is a great artistic principle to recognise the limitations of your material.

A very hearty vote of thanks was given to Mr. East for his interesting and instructive address.—*The Journal of the Camera Club.*

Vicol.

At a meeting of the London and Provincial Photographic Association, on October 5, Messrs. Berger & Co.'s representative attended to describe and demonstrate Vicol printing-out paper for the quick and easy production of coloured photographs. The paper, it may be explained at the outset, is made with matt and glossy surface, and, whichever it may be, it always presents a rose tint before toning and fixing, after which turning to a delicate mauve. Printing is done in the same way as with ordinary P. O. P. The prints are then washed for ten minutes in running water or several changes, and afterwards soaked for two or three minutes in—

Common salt	1 ounce,
Water	20 ounces,

with constant motion. After a further washing for ten minutes, the prints are ready for toning, and any recognised bath will serve. The following is, however, especially recommended:—

A.

Ammonium sulphocyanide	150 grains.
Water	15 ounces.

B.

Gold chloride	15 grains.
Water (distilled or boiled)	15 ounces.

Two ounces of A added to 16 ounces of water, mixed with 2 ounces of B, constitute the bath. After toning, the prints are washed for five minutes, and then immersed in a freshly mixed fixing bath, made up of—

Hypo	3 ounces.
Water	20 „

The final washing should be for about an hour, but in hot weather this may be followed up by treatment in an alum bath for five minutes—

Alum	1 ounce.
Water	20 ounces.

The hardening bath must be followed by five minutes' washing before any colouring is attempted. For the colouring process three solutions are required as follows:—

A. Citric acid, 5 ounces in 95 ounces of water.
B. Sodium hydrate, 3 ounces in 97 ounces of water.
C. Pyrogallic acid, 1 ounce in 99 ounces of water.

Smaller quantities may, of course, be made, but the proportions must be preserved. The mounted prints are then taken, and the solutions applied with a camel's-hair brush, the surface of the print being previously lightly sponged. The A solution gives flesh tints, the B solution blue tones. Green is obtained by following up B solution with C solution, the depth of the green varying with the strength of the C solution. The weaker the C solution, the paler the shade of green obtained, but, if it should be too strong, the colour will tend towards brown. Brown and buff-yellow tints are secured by first proceeding as for green, followed after the surface has dried by solution A. A strong C solution gives deep browns, and it must be well diluted for yellow tints. The process has its advantages and disadvantage. One of the former is its cheapness. A few pennyworths of chemicals will make solution sufficient for many years' use. Washing soda generally contains enough sodium hydrate for the purpose, and may be used in place of the hydrate. After cheapness may be mentioned the advantage it offers to the professional. Hitherto not much colouring work has been done by professionals because of the time it calls for by other methods. Vicol, however, renders the delicate work of colouring the face a matter of but a few seconds. Another advantage named was that skill and care were not absolutely essential, and it was shown that, though one might splash the solutions about, the final result need not suffer. The process presents a cheap and tasteful method of preparing show cards, menu cards, &c., in colours by photographic means, and for landscape work it also has much to commend it, nearly every shade of green as well as brown being now possible. Before proficiency is acquired, it may be necessary to experiment on a packet or two of paper; but, on the other hand, some hit success from the first. Vicol should be specially useful in medical and X-ray photography, where the flesh, the veins, and the bones could be differently coloured, and for machinery photographs it is expected to compete with the ferro-prussiate process. The demonstrator proceeded to colour a number of prints before the meeting, showing the suitability of the process for portraits. If the matt paper be used, the general flesh tints of the citric acid solution may be enhanced by crayon or other working up. The makers only ask for a fair trial of the paper. Many had exposed the results to conditions which it would not be possible for any coloured photography to withstand, in direct sunlight and so on, and yet were surprised at their going off. The colouring could be as easily done before the mounting of the print; in fact, as it is taken from the washing water as after it is mounted. A great deal depended upon well sponging the coloured print when dry with water to remove any excess of acid, &c., and, if this be done, the result should be as permanent as by any other process. The speaker laid some stress upon the mountant being neutral.

Mr. Walter D. Welford said he had tried the paper, and showed his results. He found no great difficulty in mastering the process, and had only failed once. His prints were far more delicately tinted than most of those shown, and in some cases efforts at translating a sunlit sky had been made. He found that the pyro solution was very strong at one per cent. He diluted this again considerably with every success. He found, as it was stated, that the toning formula was unimportant, and had employed the bicarbonate bath. He found nothing gained by sponging the surface of the print before tinting. It was easier to manage dry. The caustic soda played havoc with the camel's-hair brushes, but he was told that a hog's-hair brush might be used instead.

A long discussion ensued, chiefly upon the claims to permanence which are made for the process and other points of detail, and the meeting closed with a hearty vote of thanks to the demonstrator and his assistant.—*British Journal of Photography.*

COMPETITIONS.

(Open only to Members of the Society.)

SUBJECTS FOR MONTHLY COMPETITIONS.

For December ...	...	*A Water Scene.*
„ February 1900	...	*A Landscape.*
„ March „	...	*Foliage.*
„ April „	...	*An equestrian study.*
„ May „	...	*A Village scene.*

31ST JANUARY 1900—HALF YEARLY ... **Architecture.**

RULES.

1. *Two Special Competitions shall be held, in each year, in addition to a monthly competition.*

2. *The Committee shall select the subjects for the Special Competitions, and notice of the selected subjects shall be announced in the Society's Journal in February and in July of each year. The subject for each monthly competition shall be selected two months in advance by the members present at the monthly meeting, and shall be notified in the next issue of the Society's Journal.*

3. *Pictures, &c., competing for Prizes at the Special Competitions must reach the Secretary by the last day of January and of May, and those competing at the monthly competitions must arrive in time to be shown at the monthly meeting.*

4. *Prizes will consist of Silver and of Bronze Medals, and of Certificates of Merit.*

5. *Not more than one Silver and one Bronze Medal shall be given at each Special Competition, and one Silver and one Bronze Medal may also be given at these competitions for excellence in copying, enlarging, lantern slides, or any other special branch of photography. One Silver and one Bronze Medal shall be awarded half-yearly to the exhibitors who obtain the highest and the next highest marks respectively at the monthly competitions. The number of Certificates of Merit granted at each competition is left to the discretion of the Judges.*

6. *A member may receive only one Silver and one Bronze Medal in the special, and one Silver and one Bronze Medal in the monthly, competitions, held during the same year; but should a member who has been adjudged a medal be disqualified under this rule from receiving it, he shall be given a Special Certificate instead, marked 1st or 2nd Prize.*

7. *A Special Committee of three members shall be appointed Judges by the General Committee to carry out, subject to these Rules, all arrangements connected with the competitions.*

8. *The Special Committee shall be appointed after the Annual General Meeting in January, and shall hold office for one year, and any vacancy occurring will be filled up by the General Committee.*

9. *The Special Committee shall decide upon the merits of the pictures, &c., sent in for competition, and their decision shall be final. The system of judging the monthly exhibits shall be by awarding marks, a record of which shall be kept by the Judges, the marks being totalled and the results declared half-yearly. For this purpose, only the three highest marks awarded at each competition to each competitor shall be recorded, but not the aggregate marks gained by each for a number of exhibits.*

10. *If any member of the Special Committee is a competitor, the General Committee shall appoint a non-competing member to act as Judge at that competition instead of the competing member.*

11. *No exhibit shall compete twice, but pictures, &c., already exhibited elsewhere, may be sent in for the competitions.*

12. *Lantern slides sent in for competition shall be in sets of six, and shall be judged upon the screen.*

13. *The Special Committee shall not award any Prizes or Certificates, unless they consider the exhibits to be worthy of such distinction.*

14. *Each competing exhibit shall be the entire work of the exhibitor, and when sent in shall be accompanied by a Certificate in the annexed form:—*

> *"The (1) Arranging, (2) Exposing, (3) Developing, (4) Retouching (if any), (5) Printing and (6) Trimming and Mounting were done by me without assistance."*
>
> ______________________
>
> *Member, A. P. Socy. of Madras.*

15. *All pictures for the Special Competitions shall be mounted, and may, at the competitor's option, be framed but not glazed. Those for the monthly competitions need not be mounted, but should be trimmed.*

16. *Each competing picture should have a name or title, which should indicate the nature of the subject.*

17. *No competitor shall be allowed to send in more than six pictures to compete for any particular Prize, but the same member may compete in all branches specified in Rule 5.*

18. *The pictures gaining 1st and 2nd Prizes at the half-yearly competitions, and the best pictures sent for the monthly competitions, shall, when practicable, be reproduced in the Society's Journal.*

19. *To give up-country members an opportunity of seeing the competing pictures at the special competitions, the pictures shall be circulated to all members of the Society, not residing in Madras, who apply to see them. As this arrangement can only be carried out by the cordial co-operation of the members themselves, they are expected to forward the pictures without delay to the next member, and to send one of the accompanying post-cards to the Secretary, so that by this means the progress of the pictures may be traced.*

List of Members whose Dark Rooms are available for use by Members of the Madras Amateur Photographic Society.

E. MAENNIG, Buckingham House, Tranquebar.

WANTED.

By a lady member of the Society a WIDE ANGLE LENS capable of covering a 12″ X 10″ plate, focal length to be 8 inches or under: send details and price to the Honorary Secretary of the Society at an early date.

NOTICES.

Members of the Madras Amateur Photographic Society are permitted to use this column free of charge for two insertions of each advertisement—all subsequent insertions of the same being chargeable at 2 annas a line. When an advertisement becomes liable to this charge, it will not be inserted unless a postal order or stamps to the value of the charge are previously sent, addressed to Graves, Cookson and Co., Scottish Press, Mount Road Branch, Madras. Advertisements received up to the 5th of each month will be inserted in the next issue of the Journal; those received after this date will be held over for the subsequent issue.

Subscribers, and others who are not regular dealers may make use of this column for advertisements by paying at the rate of 3 annas a line.

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N.B.—The Journal is issued on the 15th of each month, and is posted free to members of the Madras Amateur Photographic Society.

Entrance Fee, Rs. 5.—Annual Subscription *for Resident Members, Rs. 15; for Up-country Members, Rs. 12. Members joining after 30th June pay Half-year's Subscription.*

Candidates for Election—*should be proposed by one member and seconded by another; and they will be ballotted for at the following meeting.*

Ordinary Meetings—*of the Society are held on the first Friday of each month at 6 p.m. and members are at liberty to introduce visitors: meetings take place at the Museum, Egmore.*

Letters to the Editor—*should be addressed care of Messrs. Graves, Cookson & Co., Scottish Press, Mount Road Branch, Madras.*

Letters to the Honorary Secretary and Treasurer—*should be addressed to F. Dunsterville, Esq., Masonic Hall, Mount Road, Madras.*

Communications regarding the issue of the Journal—*should be addressed to the Publishers, as above.*